

**ABSTRACT**

The invention is related to a transmitter in which modulator output signal values are generated by a multi-level modulation method. The transmitter comprises means (606) for storing a pre-defined number of values corresponding to data symbols and representing a signal or a pulse format, the transmitter comprises means (602, 604) for selecting values representing a signal or a pulse format to be used to define in-phase and quadrature values, the transmitter comprises means (602, 604, 606) for defining in-phase and quadrature component values using the selected values corresponding to data symbols and representing a signal or a pulse format, the transmitter comprises means (608, 610) for defining modulator output signal values by summing in-phase and quadrature component values while the number of in-phase and quadrature component values to be summed is determined by the number of inter-dependent symbols.